## **Surgical Site Infection (SSI)**

NHSN SSI protocol <a href="http://www.cdc.gov/nhsn/PDFs/pscManual/9pscSSIcurrent.pdf?agree=yes&next=Accept">http://www.cdc.gov/nhsn/PDFs/pscManual/9pscSSIcurrent.pdf?agree=yes&next=Accept</a>

Patient name	MR #_	Date of procedure	
Date of review		(date when the last element to meet the NH	ISN site-specific infection criteria occurred)
Criterion for superfici	al incisional SSI		
	thin 30 days after any NHSN	I operative procedure, including those code	ed as "OTH"
AND			
□ Involves only the sl	kin and subcutaneous tissue	of the incision	
AND			
□ Patient has at least	one of the following:		
<ul> <li>Purulent dra</li> </ul>	ninage from the superficial in	cision	
<ul> <li>Organisms</li> </ul>	isolated from an aseptically-	obtained culture of fluid or tissue from the	superficial incision
			or is not cultured (a culture negative finding does not
meet this cr	•		`
	,,	following signs or symptoms:	
-	Pain or tenderness		
	Localized swelling		
	Redness		
	Heat		
		by the surgeon or attending physician	

Note: There are two specific types of superficial incisional SSIs:

- 1. Superficial Incisional Primary (SIP) a superficial incisional SSI that is identified in the primary incision in a patient that has had an operation with one or more incisions (e.g., C-section incision or chest incision for CBGB)
- 2. Superficial Incisional Secondary (SIS) a superficial incisional SSI that is identified in the secondary incision in a patient that has had an operation with more than one incision (e.g., donor site [leg] incision for CBGB)

## Reporting instructions:

- Do not report a stitch abscess (minimal inflammation and discharge confined to the points of suture penetration) as an infection.
- Do not report a localized stab wound or pin site infection as an SSI. Although it would be considered either a skin (SKIN) or soft tissue (ST) infection, depending on its depth, it is not reportable under this module.
- Diagnosis of "cellulitis," by itself, does not meet criterion d for superficial incisional SSI.
- If the superficial incisional infection extends into the fascial and/or muscle layers, report as a deep incisional SSI only.
- An infected circumcision site in newborns is classified as CIRC. Circumcision is not an NHSN operative procedure. CIRC is not reportable under this
  module.
- An infected burn wound is classified as BURN and is not reportable under this module.





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Patient name	MR #	Date of procedure	
Date of review		(date when the last element to meet the NHS	
-	incisional SSI (DIP or DIS)		
☐ Infection occurs v AND	within 30 or 90 days after the NH	ISN operative procedure according to Tab	ole 3 below
☐ Involves deep sof AND	t tissues (e.g., fascial and muscle	layers) of the incision	
□ Patient has at leas	t one of the following:		
o Purulent d	lrainage from the deep incision.		
o A deep ind	cision that spontaneously dehisce	es or is deliberately opened by a surgeon	and is culture positive or not cultured (a culture
negative fin	ding does not meet this compone	ent)	
AND	the patient has at least one of the	e following signs or symptoms:	
	Fever (> 38° C)		
	Localized pain or tenderness		
<ul> <li>An absces</li> </ul>	s or other evidence of infection i	nvolving the deep incision that is found of	on direct examination, during an invasive procedure, or
by histopa	thologic examination or imaging	g test	
<ul> <li>Diagnosis</li> </ul>	of a deep incisional SSI by a sur	geon or attending physician	
Note: There are two sp	pecific types of deep incisional SSIs	<i>:</i> :	
•	onal Primary (DIP)—a deep incision	* *	in a patient that has had an operation with one or more

- incisions (e.g., C-section incision or chest incision for CBGB)

  2. Deep Incisional Secondary (DIS)—a deep incisional SSI that is identified in the secondary incision in a patient that has had an operation with more than one incision (e.g., donor site incision for CBGB)

## Reporting instructions:

- Classify infection that involves both superficial and deep incisional sites as deep incisional SSI.
- Classify infection that involves deep incisional and organ/space sites as deep incisional SSI. This is considered a complication of the incision.





#### **Surgical Site Infection (SSI)**

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Patient name	MR # Date of procedure
Date of review	<u> </u>
Criterion for	organ/space SSI
☐ Infection o AND	ccurs within 30 or 90 days after the NHSN operative procedure according to Table 3 below
☐ Infection in procedure	nvolves any part of the body, excluding the skin incision, fascia, or muscle layers, that is opened or manipulated during the operative
AND	
□ Patient has	at least <u>one</u> of the following:
0	Purulent drainage from a drain that is placed into the organ/space
0	Organisms isolated from an aseptically-obtained culture of fluid or tissue in the organ/space
0	An abscess or other evidence of infection involving the organ/space that is found on direct examination, during an invasive procedure, or by histopathologic examination or imaging test
0	Diagnosis of an organ/space SSI by a surgeon or attending physician
AND	
□ Meets at le	ast one criterion for a specific organ/space infection site listed in Table 4 below

Note: Because an organ/space SSI involves any part of the body, excluding the skin incision, fascia, or muscle layers, that is opened or manipulated during the operative procedure, the criterion for infection at these body sites must be met in addition to the organ/space SSI criteria. For example, an appendent with subsequent subdiaphragmatic abscess would be reported as an organ/space SSI at the intraabdominal specific site (SSI-IAB) when both organ/space SSI and IAB criteria are met. Table 4 lists the specific sites that must be used to differentiate organ/space SSI. These criteria are in Chapter 17 (HAI Definitions) of the NHSN manual.

#### Reporting instructions:

- If a patient has an infection in the organ/space being operated on and the surgical incision was closed primarily, subsequent continuation of this infection type during the remainder of the surveillance period is considered an organ/space SSI, if organ/space SSI and site-specific infection criteria are met. Rationale: Risk of continuing or new infection is considered to be minimal when a surgeon elects to close a wound primarily.
- Occasionally an organ/space infection drains through the incision and is considered a complication of the incision. Therefore, classify it as a deep incisional SSI.
- Report mediastinitis following cardiac surgery that is accompanied by osteomyelitis as SSI-MED rather than SSI-BONE.
- If meningitis (MEN) and a brain abscess (IC) are present together after operation, report as SSI-IC.
- Report CSF shunt infection as SSI-MEN if it occurs within 90 days of placement; if later or after manipulation/access, it is considered CNS-MEN and is not reportable under this module.
- Report spinal abscess with meningitis as SSI-MEN following spinal surgery.





Table 3. Surveillance Period for Deep Incisional or Organ/Space SSI Following Selected NHSN Operative Procedure Categories 30day Surveillance

30-day Surveillance				
Code	Operative Procedure	Code	Operative Procedure	
AAA	Abdominal aortic aneurysm repair	LAM	Laminectomy	
AMP	Limb amputation	LTP	Liver transplant	
APPY	Appendix surgery	NECK	Neck surgery	
AVSD	Shunt for dialysis	NEPH	Kidney surgery	
BILI	Bile duct, liver or pancreatic surgery	OVRY	Ovarian surgery	
CEA	Carotid endarterectomy	PRST	Prostate surgery	
CHOL	Gallbladder surgery	REC	Rectal surgery	
COLO	Colon surgery	SB	Small bowel surgery	
CSEC	Cesarean section	SPLE	Spleen surgery	
GAST	Gastric surgery	THOR	Thoracic surgery	
HTP	Heart transplant	THYR	Thyroid and/or parathyroid surgery	
HYST	Abdominal hysterectomy	VHYS	Vaginal hysterectomy	
KTP	Kidney transplant	XLAP	Exploratory Laparotomy	
		OTH	Other operative procedures not included in the NHSN categories	
		90-day	Surveillance	
Code	Operative Procedure			
BRST	Breast surgery			
CARD	Cardiac surgery			
CBGB	Coronary artery bypass graft with both chest and donor site incisions			
CBGC	Coronary artery bypass graft with chest incision only			
CRAN	Craniotomy			
FUSN	Spinal fusion			
FX	Open reduction of fracture			
HER	Herniorrhaphy			
HPRO	Hip prosthesis			
KPRO	Knee prosthesis			
PACE	Pacemaker surgery			
PVBY	Peripheral vascular bypass surgery			
RFUSN	Refusion of spine			
VSHN	Ventricular shunt			

NOTE: Superficial incisional SSIs are only followed for a 30-day period for all procedure types.





Table 4. Specific Sites of an Organ/Space SSI. Criteria for these sites can be found in the NHSN Help system (must be logged in to NHSN) or the HAI Definitions chapter.

Code	Site	Code	Site
BONE	Osteomyelitis	JNT	Joint or bursa
BRST	Breast abscess or mastitis	LUNG	Other infections of the respiratory tract
CARD	Myocarditis or pericarditis	MED	Mediastinitis
DISC	Disc space	MEN	Meningitis or ventriculitis
EAR	Ear, mastoid	ORAL	Oral cavity (mouth, tongue, or gums)
EMET	Endometritis	OREP	Other infections of the male or female reproductive tract
ENDO	Endocarditis	OUTI	Other infections of the urinary tract
EYE	Eye, other than conjunctivitis	SA	Spinal abscess without meningitis
GIT	GI tract	SINU	Sinusitis
HEP	Hepatitis	UR	Upper respiratory tract
IAB	Intraabdominal, not specified elsewhere	VASC	Arterial or venous infection
IC	Intracranial, brain abscess or dura	VCUF	Vaginal cuff





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